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IGI/LR1

Задание 2: Создайте структуру папок (использовать командную строку) и поместите в репозиторий Git на своем локальном компьютере.

```
Directory: D:\uni\4sem

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:40 PM                253505_Malashkevich_13

PS D:\uni\4sem> cd 253505_Malashkevich_13
PS D:\uni\4sem\253505_Malashkevich_13> md IGI

Directory: D:\uni\4sem\253505_Malashkevich_13

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:41 PM                IGI

PS D:\uni\4sem\253505_Malashkevich_13> md STRWEB

Directory: D:\uni\4sem\253505_Malashkevich_13

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:41 PM                STRWEB

PS D:\uni\4sem\253505_Malashkevich_13> cd IGI
PS D:\uni\4sem\253505_Malashkevich_13\IGI> md LR1

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:41 PM                LR1

PS D:\uni\4sem\253505_Malashkevich_13\IGI> md LR2

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:41 PM                LR2

PS D:\uni\4sem\253505_Malashkevich_13\IGI> md LR3

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:42 PM                LR3
```

ЗАДАНИЕ:

```
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1> cd bin
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> md 755

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:44 PM             755

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> md baz

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:44 PM             baz

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> cd baz
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\baz> md 734

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\baz

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:45 PM             734

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\baz> cd ..\
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\baz> cd ..\
PS D:\> cd uni\4sem
PS D:\uni\4sem> cd 253505_Malashkevich_13
PS D:\uni\4sem\253505_Malashkevich_13> cd IGI
PS D:\uni\4sem\253505_Malashkevich_13\IGI> cd LR1
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1> ren bin bar
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1> md bin

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:49 PM             bin

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1> cd bin
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> md 177

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:51 PM             177

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> echo 534 > readme.txt
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> md example

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin

Mode                LastWriteTime         Length Name
----                -
```

```
Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:52 PM             example

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> md foo

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:52 PM             foo

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> cd example
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\example> md 535

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\example

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:53 PM             535

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\example> cd .\
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\example> cd ..
cd : The term 'cd' is not recognized as the name of a cmdlet, function, script file, or operable program. Check the spelling of the name, or if a path was
included, verify that the path is correct and try again.
At line:1 char:1
+ cd ..
+ ~~~
+ CategoryInfo          : ObjectNotFound: (cd:String) [], CommandNotFoundException
+ FullyQualifiedErrorId : CommandNotFoundException

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\example> cd..
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> cd foo
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo> md 131

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:54 PM             131

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo> md awk

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo

Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:54 PM             awk

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo> echo 737 > test.txt
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo> cd awk
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo\awk> md 434

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin\foo\awk
```

ПОЛУЧЕННЫЙ РЕЗУЛЬТАТ:

```
PS D:\uni\4sem\253505_Malashkevich_13> tree /f
Folder PATH listing for volume Programming
Volume serial number is E473-DD51
D:.\
├── IGI
│   ├── LR1
│   │   ├── bar
│   │   │   ├── 755
│   │   │   └── baz
│   │   │       └── 734
│   │   └── bin
│   │       ├── readme.txt
│   │       ├── 177
│   │       ├── example
│   │       │   └── 535
│   │       └── foo
│   │           ├── test.txt
│   │           ├── 131
│   │           └── awk
│   │               └── 434
│   ├── LR2
│   ├── LR3
│   ├── LR4
│   └── LR5
└── STRWEB
```

```
/
|--bar/755
|   |--baz/734
|--bin/177
|   |--readme.txt/534
|   |--example/535
|   |--foo/131
|       |--awk/434
|       |--test.txt/737
```

Добавление папок в STRWEB и init

```
PS D:\uni\4sem\253505_Malashkevich_13> cd STRWEB
PS D:\uni\4sem\253505_Malashkevich_13\STRWEB> md LR1
```

Directory: D:\uni\4sem\253505_Malashkevich_13\STRWEB

Mode	LastWriteTime	Length	Name
d-----	2/28/2024 4:59 PM		LR1

```
PS D:\uni\4sem\253505_Malashkevich_13\STRWEB> md LR2
```

Directory: D:\uni\4sem\253505_Malashkevich_13\STRWEB

Mode	LastWriteTime	Length	Name
d-----	2/28/2024 4:59 PM		LR2

```
PS D:\uni\4sem\253505_Malashkevich_13\STRWEB> md LR3
```

Directory: D:\uni\4sem\253505_Malashkevich_13\STRWEB

Mode	LastWriteTime	Length	Name
d-----	2/28/2024 4:59 PM		LR3

```
PS D:\uni\4sem\253505_Malashkevich_13\STRWEB> md LR4
```

Directory: D:\uni\4sem\253505_Malashkevich_13\STRWEB

Mode	LastWriteTime	Length	Name
d-----	2/28/2024 4:59 PM		LR4

```
PS D:\uni\4sem\253505_Malashkevich_13> git init
Initialized empty Git repository in D:/uni/4sem/253505_Malashkevich_13/.git/
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Задание 3:Создайте репозиторий внутри папки LR1 с помощью клонирования проекта с сайта [github.com](https://github.com/smartigaorg/geometric_lib) ([https://github.com/smartigaorg/geometric lib](https://github.com/smartigaorg/geometric_lib))

```
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1> git clone https://github.com/smartigaorg/geometric_lib
Cloning into 'geometric_lib'...
remote: Enumerating objects: 35, done.
remote: Total 35 (delta 0), reused 0 (delta 0), pack-reused 35
Receiving objects: 100% (35/35), 4.60 KiB | 4.60 MiB/s, done.
Resolving deltas: 100% (6/6), done.
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1> |
```

Задание 4: Выполните следующие действия, каждый раз проверяя состояние файлов в локальном репозитории до и после выполнения операции:

A: сделайте индексацию нескольких файлов в вашем Git-репозитории (git add ...)

```
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> dir

Directory: D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin


Mode                LastWriteTime         Length Name
----                -
d-----          2/28/2024   4:51 PM             177
d-----          2/28/2024   4:53 PM            example
d-----          2/28/2024   4:54 PM             foo
-a-----          2/28/2024   4:52 PM             12 readme.txt

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> git add readme.txt
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> git add foo/test.txt
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> git status
On branch develop

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   foo/test.txt
        new file:   readme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        ../geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> |
```

В: внесите изменения в файлы.

```
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> echo hello_world > readme.txt
PS D:\uni\4sem\253505_Malashkevich_13\IGI\LR1\bin> git status
On branch develop

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   foo/test.txt
    new file:   readme.txt

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   readme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    ../geometric_lib/
```

С: выполните коммиты к проиндексированным файлам.

```
PS D:\uni\4sem\253505_Malashkevich_13> git commit -m "first commit"
[develop (root-commit) efce571] first commit
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 IGI/LR1/bin/foo/test.txt
 create mode 100644 IGI/LR1/bin/readme.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   IGI/LR1/bin/readme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

no changes added to commit (use "git add" and/or "git commit -a")
PS D:\uni\4sem\253505_Malashkevich_13> |
```

D: добавьте и удалите файлы (один и группу файлов с определенным расширением).

```
PS D:\uni\4sem\253505_Malashkevich_13> del IGI/LR1/bin/readme.txt
PS D:\uni\4sem\253505_Malashkevich_13> echo nothing > IGI/LR1/bin/donotreadme.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        deleted:    IGI/LR1/bin/readme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/bin/donotreadme.txt
        IGI/LR1/geometric_lib/

no changes added to commit (use "git add" and/or "git commit -a")
PS D:\uni\4sem\253505_Malashkevich_13> |
```

E: переименуйте файлы.

```
PS D:\uni\4sem\253505_Malashkevich_13> ren IGI/LR1/bin/donotreadme.txt ofcreadme.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        deleted:    IGI/LR1/bin/readme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/bin/ofcreadme.txt
        IGI/LR1/geometric_lib/

no changes added to commit (use "git add" and/or "git commit -a")
PS D:\uni\4sem\253505_Malashkevich_13> |
```


F: создайте для IGI и STRWEB, а также для каждой ЛР, вложенной в них, отдельные ветки, переместите папки и файлы на соответствующие ветки.

-----STRWEB-----

```
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

nothing added to commit but untracked files present (use "git add" to track)
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b STRWEB_br
Switched to a new branch 'STRWEB_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > STRWEB/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add STRWEB/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch STRWEB_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   STRWEB/str.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'strweb1'
[STRWEB_br 3d41f78] strweb1
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 STRWEB/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b STRWEB_lr1_br
Switched to a new branch 'STRWEB_lr1_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > STRWEB/LR1/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add STRWEB/LR1/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch STRWEB_lr1_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   STRWEB/LR1/str.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'strweb_lr1'
[STRWEB_lr1_br c8fb527] strweb_lr1
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 STRWEB/LR1/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout STRWEB_br
Switched to branch 'STRWEB_br'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b STRWEB_lr2_br
Switched to a new branch 'STRWEB_lr2_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > STRWEB/LR2/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add STRWEB/LR2/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch STRWEB_lr2_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   STRWEB/LR2/str.txt

Untracked files:
```

```

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'strweb_lr2'
[STRWEB_lr2_br e2c9658] strweb_lr2
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 STRWEB/LR2/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout STRWEB_br
Switched to branch 'STRWEB_br'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b STRWEB_lr3_br
Switched to a new branch 'STRWEB_lr3_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > STRWEB/LR3/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add STRWEB/LR3/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch STRWEB_lr3_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   STRWEB/LR3/str.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'strweb_lr3'
[STRWEB_lr3_br 4a2b353] strweb_lr3
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 STRWEB/LR3/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout STRWEB_br
Switched to branch 'STRWEB_br'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b STRWEB_lr4_br
Switched to a new branch 'STRWEB_lr4_br'
PS D:\uni\4sem\253505_Malashkevich_13> git add STRWEB/LR4/str.txt
fatal: pathspec 'STRWEB/LR4/str.txt' did not match any files
PS D:\uni\4sem\253505_Malashkevich_13> echo no > STRWEB/LR4/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add STRWEB/LR4/str.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch STRWEB_lr4_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   STRWEB/LR4/str.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'strweb_lr4'
[STRWEB_lr4_br 7007017] strweb_lr4
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 STRWEB/LR4/str.txt

```

```

PS D:\uni\4sem\253505_Malashkevich_13> git branch
  STRWEB_br
  STRWEB_lr1_br
  STRWEB_lr2_br
  STRWEB_lr3_br
* STRWEB_lr4_br
  develop
PS D:\uni\4sem\253505_Malashkevich_13> git checkout develop
Switched to branch 'develop'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b IGI
Switched to a new branch 'IGI'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > IGI/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch IGI
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/igi.txt

```

Igi

```
PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_1'
[IGI a08f081] igi_1
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b IGI_lr1_br
Switched to a new branch 'IGI_lr1_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > IGI/LR1/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR1/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch IGI_lr1_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/LR1/igi.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_lr1'
[IGI_lr1_br 40d5806] igi_lr1
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/LR1/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout IGI
Switched to branch 'IGI'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b IGI_lr2_br
Switched to a new branch 'IGI_lr2_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > IGI/LR2/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR2/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch IGI_lr2_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/LR2/igi.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_lr2'
[IGI_lr2_br ce671ad] igi_lr2
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/LR2/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout IGI
Switched to branch 'IGI'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b IGI_lr3_br
Switched to a new branch 'IGI_lr3_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > IGI/LR3/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR3/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch IGI_lr3_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/LR3/igi.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_lr3'
[IGI_lr3_br 8d09f2e] igi_lr3
1 file changed, 0 insertions(+), 0 deletions(-)
```

```

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_lr3'
[IGI_lr3_br 8d09f2e] igi_lr3
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/LR3/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout IGI
Switched to branch 'IGI'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b IGI_lr4_br
Switched to a new branch 'IGI_lr4_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > IGI/LR4/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR4/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch IGI_lr4_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/LR4/igi.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_lr4'
[IGI_lr4_br c311b49] igi_lr4
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/LR4/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout IGI
Switched to branch 'IGI'
PS D:\uni\4sem\253505_Malashkevich_13> git checkout -b IGI_lr5_br
Switched to a new branch 'IGI_lr5_br'
PS D:\uni\4sem\253505_Malashkevich_13> echo no > IGI/LR5/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR5/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch IGI_lr5_br
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   IGI/LR5/igi.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
  IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'igi_lr5'
[IGI_lr5_br a96478b] igi_lr5
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 IGI/LR5/igi.txt
PS D:\uni\4sem\253505_Malashkevich_13> git checkout develop
Switched to branch 'develop'
PS D:\uni\4sem\253505_Malashkevich_13> git branch
  IGI
  IGI_lr1_br
  IGI_lr2_br
  IGI_lr3_br
  IGI_lr4_br
  IGI_lr5_br
  STRWEB_br
  STRWEB_lr1_br
  STRWEB_lr2_br
  STRWEB_lr3_br
  STRWEB_lr4_br
* develop
PS D:\uni\4sem\253505_Malashkevich_13> |

```

G: выведите историю коммитов: полностью и с ограничением вывода — отобразить только последние, до и после указанной даты, по автору файлов, коммитов (флаги n, since, after, until, before, author, committer, grep) <https://code.mu/ru/tool/git/basis/limit-output-commit-history-flags/> .

ALL: (Нажав q надпись end уходит)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --all
commit a96478b8b9909810f98e077a222b3695bec1cefc (IGI_lr5_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:53 2024 +0300

    igi_lr5

commit c311b495a0f9fed3d3e7e7ed374cedd0e27b24e2 (IGI_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:21 2024 +0300

    igi_lr4

commit 8d09f2eb03642c3e937ea885d56d0411fc4a98bc (IGI_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:45 2024 +0300

    igi_lr3

commit ce671ad8715aa86a277517da41f074b3663d54eb (IGI_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:04 2024 +0300

    igi_lr2

commit 40d5806e1fea1d81879c104a31cb89de6acd3ebd (IGI_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:29:05 2024 +0300

    igi_lr1

commit a08f081baa0dd9a81771a5a45b1cc688bba4abb5 (IGI)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:28:14 2024 +0300

    igi_1

commit 78378d8a742e6d6554759f7b1b1d7db3ed0ce4a3 (STRWEB_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:26:38 2024 +0300

    strweb_lr4

commit 4a2b353774dbb7406b88bed622eadcbfc803d5e (STRWEB_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:25:43 2024 +0300

    strweb_lr3

commit e2c965812a5ed056cd99bf476c9d4d76cab59c69 (STRWEB_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:24:53 2024 +0300

    strweb_lr2

commit c8fb527cffe5ed91e5deb05a097e44220c6fb874 (STRWEB_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:23:43 2024 +0300

    strweb_lr1

commit 3d41f78a9b96428d5e6bc666fbf5797f26a6c0aa (STRWEB_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:21:21 2024 +0300
```

```
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit
(END)
```

N:

```
first commit
PS D:\uni\4sem\253505_Malashkevich_13> git log --all -1
commit a96478b8b9909810f98e077a222b3695bec1cefc (IGI_lr5_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:53 2024 +0300

    igi_lr5
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Until:

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --all --until="2024-02-28 17:20"
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Since:

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --all --since="2024-02-28 17:30"
commit a96478b8b9909810f98e077a222b3695bec1cefc (IGI_lr5_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:53 2024 +0300

    igi_lr5

commit c311b495a0f9fed3d3e7e7ed374cedd0e27b24e2 (IGI_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:21 2024 +0300

    igi_lr4

commit 8d09f2eb03642c3e937ea885d56d0411fc4a98bc (IGI_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:45 2024 +0300

    igi_lr3

commit ce671ad8715aa86a277517da41f074b3663d54eb (IGI_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:04 2024 +0300

    igi_lr2
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Author:

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --all --author='miksa'
commit a96478b8b9909810f98e077a222b3695bec1cefc (IGI_lr5_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:53 2024 +0300

    igi_lr5

commit c311b495a0f9fed3d3e7e7ed374cedd0e27b24e2 (IGI_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:21 2024 +0300

    igi_lr4

commit 8d09f2eb03642c3e937ea885d56d0411fc4a98bc (IGI_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:45 2024 +0300

    igi_lr3

commit ce671ad8715aa86a277517da41f074b3663d54eb (IGI_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:04 2024 +0300

    igi_lr2

commit 40d5806e1feald81879c104a31cb89de6acd3ebd (IGI_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:29:05 2024 +0300

    igi_lr1

commit a08f081baa0dd9a81771a5a45b1cc688bba4abb5 (IGI)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:28:14 2024 +0300

    igi_1

commit 78378d8a742e6d6554759f7b1b1d7db3ed0ce4a3 (STRWEB_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:26:38 2024 +0300

    strweb_lr4

commit 4a2b353774dbb7406b88bed6228eadcbfc803d5e (STRWEB_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:25:43 2024 +0300

    strweb_lr3

commit e2c965812a5ed056cd99bf476c9d4d76cab59c69 (STRWEB_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:24:53 2024 +0300

    strweb_lr2
```



```

commit c8fb527cffe5ed91e5deb05a097e44220c6fb874 (STRWEB_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:23:43 2024 +0300

    strweb_lr1

commit 3d41f78a9b96428d5e6bc666fbf5797f26a6c0aa (STRWEB_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:21:21 2024 +0300

    strweb1

commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit
(END)
igi_lr1

commit a08f081baa0dd9a81771a5a45b1cc688bba4abb5 (IGI)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:28:14 2024 +0300

    igi_1

commit 78378d8a742e6d6554759f7b1b1d7db3ed0ce4a3 (STRWEB_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:26:38 2024 +0300

    strweb_lr4

commit 4a2b353774dbb7406b88bed6228eadcbfc803d5e (STRWEB_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:25:43 2024 +0300

    strweb_lr3

commit e2c965812a5ed056cd99bf476c9d4d76cab59c69 (STRWEB_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:24:53 2024 +0300

    strweb_lr2

commit c8fb527cffe5ed91e5deb05a097e44220c6fb874 (STRWEB_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:23:43 2024 +0300

    strweb_lr1

commit 3d41f78a9b96428d5e6bc666fbf5797f26a6c0aa (STRWEB_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:21:21 2024 +0300

    strweb1

commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

```

Grep:

```

PS D:\uni\4sem\253505_Malashkevich_13> git log --all --grep='first'
commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit
PS D:\uni\4sem\253505_Malashkevich_13> |

```


Н: Исследуйте флаги для git log: p , stat ,shortstat, name-only, name-status, relative-date, pretty, graph.

Git log -p (--patch) показывает патчи(список коммитов и изменения)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log -p -- IGI
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

diff --git a/IGI/LR1/bin/readme.txt b/IGI/LR1/bin/readme.txt
deleted file mode 100644
index 9431e0e..0000000
Binary files a/IGI/LR1/bin/readme.txt and /dev/null differ

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

diff --git a/IGI/LR1/bin/ofcreadme.txt b/IGI/LR1/bin/ofcreadme.txt
new file mode 100644
index 0000000..aa19b60
Binary files /dev/null and b/IGI/LR1/bin/ofcreadme.txt differ

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit

diff --git a/IGI/LR1/bin/foo/test.txt b/IGI/LR1/bin/foo/test.txt
new file mode 100644
index 0000000..782052a
Binary files /dev/null and b/IGI/LR1/bin/foo/test.txt differ
diff --git a/IGI/LR1/bin/readme.txt b/IGI/LR1/bin/readme.txt
new file mode 100644
index 0000000..9431e0e
Binary files /dev/null and b/IGI/LR1/bin/readme.txt differ
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Git log --stat (сколько строк было добавлено и удалено в каждом файле)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --stat
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

IGI/LR1/bin/readme.txt | Bin 12 -> 0 bytes
1 file changed, 0 insertions(+), 0 deletions(-)

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

IGI/LR1/bin/ofcreadme.txt | Bin 0 -> 20 bytes
1 file changed, 0 insertions(+), 0 deletions(-)

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit

IGI/LR1/bin/foo/test.txt | Bin 0 -> 12 bytes
IGI/LR1/bin/readme.txt   | Bin 0 -> 12 bytes
2 files changed, 0 insertions(+), 0 deletions(-)
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Git log --shortstat (Выводит только общее количество измененных файлов и количество добавленных и удаленных строк)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --shortstat
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

1 file changed, 0 insertions(+), 0 deletions(-)

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

1 file changed, 0 insertions(+), 0 deletions(-)

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit

2 files changed, 0 insertions(+), 0 deletions(-)
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Git log --name-only (Выводит только имена измененных файлов для каждого коммита)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --name-only
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

IGI/LR1/bin/readme.txt

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

IGI/LR1/bin/ofcreadme.txt

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit

IGI/LR1/bin/foo/test.txt
IGI/LR1/bin/readme.txt
```

Git log --name-status (выводит только имена измененных файлов и их статус изменения (добавлен, изменен, удален) для каждого коммита.)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --name-status
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:14:32 2024 +0300

    delete readme

D       IGI/LR1/bin/readme.txt

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:13:00 2024 +0300

    basic stuff

A       IGI/LR1/bin/ofcreadme.txt

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:07:31 2024 +0300

    first commit

A       IGI/LR1/bin/foo/test.txt
A       IGI/LR1/bin/readme.txt
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Git log --relative-date (Этот параметр показывает относительную дату каждого коммита, например, "2 weeks ago" вместо полной даты)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --relative-date
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date:   47 minutes ago

    delete readme

commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date:   48 minutes ago

    basic stuff

commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date:   54 minutes ago

    first commit
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Git log --pretty --graph (Pretty позволяет настроить формат вывода коммитов, graph добавляет ASCII-графическое представление истории коммитов)

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --pretty=oneline --graph --all
* a96478b8b9909810f98e077a222b3695bec1cefc (IGI_lr5_br) igi_lr5
| * c311b495a0f9fed3d3e7e7ed374cedd0e27b24e2 (IGI_lr4_br) igi_lr4
|/
| * 8d09f2eb03642c3e937ea885d56d0411fc4a98bc (IGI_lr3_br) igi_lr3
|/
| * ce671ad8715aa86a277517da41f074b3663d54eb (IGI_lr2_br) igi_lr2
|/
| * 40d5806e1fea1d81879c104a31cb89de6acd3ebd (IGI_lr1_br) igi_lr1
|/
* a08f081baa0dd9a81771a5a45b1cc688bba4abb5 (IGI) igi_1
| * 78378d8a742e6d6554759f7b1b1d7db3ed0ce4a3 (STRWEB_lr4_br) strweb_lr4
| | * 4a2b353774dbb7406b88bed6228eadcbfc803d5e (STRWEB_lr3_br) strweb_lr3
| | /
| | * e2c965812a5ed056cd99bf476c9d4d76cab59c69 (STRWEB_lr2_br) strweb_lr2
| | /
| | * c8fb527cffe5ed91e5deb05a097e44220c6fb874 (STRWEB_lr1_br) strweb_lr1
| | /
| | * 3d41f78a9b96428d5e6bc666fbf5797f26a6c0aa (STRWEB_br) strweb1
| | /
* f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop) delete readme
* 860698a431f0da02c076e10d4b3281d2506fcf45 basic stuff
* efce571c9582299a5050aa8035fb351aebb89bcd first commit
PS D:\uni\4sem\253505_Malashkevich_13> |
```

I: Найдите разницу в изменениях для каждого коммита.

```
PS D:\uni\4sem\253505_Malashkevich_13> git log --all -p
commit a96478b8b9909810f98e077a222b3695bec1cefc (IGI_lr5_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:53 2024 +0300

    igi_lr5

diff --git a/IGI/LR5/igi.txt b/IGI/LR5/igi.txt
new file mode 100644
index 0000000..f1ad862
Binary files /dev/null and b/IGI/LR5/igi.txt differ

commit c311b495a0f9fed3d3e7e7ed374cedd0e27b24e2 (IGI_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:31:21 2024 +0300

    igi_lr4

diff --git a/IGI/LR4/igi.txt b/IGI/LR4/igi.txt
new file mode 100644
index 0000000..f1ad862
Binary files /dev/null and b/IGI/LR4/igi.txt differ

commit 8d09f2eb03642c3e937ea885d56d0411fc4a98bc (IGI_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:45 2024 +0300

    igi_lr3

diff --git a/IGI/LR3/igi.txt b/IGI/LR3/igi.txt
new file mode 100644
index 0000000..f1ad862
Binary files /dev/null and b/IGI/LR3/igi.txt differ

commit ce671ad8715aa86a277517da41f074b3663d54eb (IGI_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:30:04 2024 +0300

    igi_lr2

diff --git a/IGI/LR2/igi.txt b/IGI/LR2/igi.txt
new file mode 100644
index 0000000..f1ad862
Binary files /dev/null and b/IGI/LR2/igi.txt differ

commit 40d5806e1fea1d81879c104a31cb89de6acd3ebd (IGI_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:29:05 2024 +0300

    igi_lr1

diff --git a/IGI/LR1/igi.txt b/IGI/LR1/igi.txt
new file mode 100644
index 0000000..f1ad862
Binary files /dev/null and b/IGI/LR1/igi.txt differ

commit a08f081baa0dd9a81771a5a45b1cc688bba4abb5 (IGI)
Author: miksa <malaxa2000@gmail.com>
Date:   Wed Feb 28 17:28:14 2024 +0300

    igi_1

diff --git a/IGI/igi.txt b/IGI/igi.txt
```

```
commit 78378d8a742e6d6554759f7b1bd7db3ed0ce4a3 (STRWEB_lr4_br)
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:26:38 2024 +0300
```

strweb_lr4

```
diff --git a/STRWEB/LR4/str.txt b/STRWEB/LR4/str.txt
new file mode 100644
index 0000000..flad862
Binary files /dev/null and b/STRWEB/LR4/str.txt differ
```

```
commit 4a2b353774dbb7406b88bed622eadcbfc803d5e (STRWEB_lr3_br)
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:25:43 2024 +0300
```

strweb_lr3

```
diff --git a/STRWEB/LR3/str.txt b/STRWEB/LR3/str.txt
new file mode 100644
index 0000000..flad862
Binary files /dev/null and b/STRWEB/LR3/str.txt differ
```

```
commit e2c965812a5ed056cd99bf476c9d4d76cab59c69 (STRWEB_lr2_br)
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:24:53 2024 +0300
```

strweb_lr2

```
diff --git a/STRWEB/LR2/str.txt b/STRWEB/LR2/str.txt
new file mode 100644
index 0000000..flad862
Binary files /dev/null and b/STRWEB/LR2/str.txt differ
```

```
commit c8fb527cffe5ed91e5deb05a097e44220c6fb874 (STRWEB_lr1_br)
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:23:43 2024 +0300
```

strweb_lr1

```
diff --git a/STRWEB/LR1/str.txt b/STRWEB/LR1/str.txt
new file mode 100644
index 0000000..flad862
Binary files /dev/null and b/STRWEB/LR1/str.txt differ
```

```
commit 3d41f78a9b96428d5e6bc666fbf5797f26a6c0aa (STRWEB_br)
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:21:21 2024 +0300
```

strweb1

```
diff --git a/STRWEB/str.txt b/STRWEB/str.txt
new file mode 100644
index 0000000..flad862
Binary files /dev/null and b/STRWEB/str.txt differ
```

```
commit f062ccb8fa704029e1cd61a8c3df223a7df8519c (HEAD -> develop)
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:14:32 2024 +0300
```

delete readme

```
diff --git a/IGI/LR1/bin/readme.txt b/IGI/LR1/bin/readme.txt
deleted file mode 100644
index 9431e0e..0000000
```

```
commit 860698a431f0da02c076e10d4b3281d2506fcf45
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:13:00 2024 +0300
```

basic stuff

```
diff --git a/IGI/LR1/bin/ofcreadme.txt b/IGI/LR1/bin/ofcreadme.txt
new file mode 100644
index 0000000..aa19b60
Binary files /dev/null and b/IGI/LR1/bin/ofcreadme.txt differ
```

```
commit efce571c9582299a5050aa8035fb351aebb89bcd
Author: miksa <malaxa2000@gmail.com>
Date: Wed Feb 28 17:07:31 2024 +0300
```

first commit

```
diff --git a/IGI/LR1/bin/foo/test.txt b/IGI/LR1/bin/foo/test.txt
new file mode 100644
index 0000000..782052a
Binary files /dev/null and b/IGI/LR1/bin/foo/test.txt differ
diff --git a/IGI/LR1/bin/readme.txt b/IGI/LR1/bin/readme.txt
new file mode 100644
index 0000000..9431e0e
Binary files /dev/null and b/IGI/LR1/bin/readme.txt differ
(END)
Binary files /dev/null and b/STRWEB/LR1/str.txt differ
```

Ж. Создайте новый файл test.txt и вставьте в него строчку 'номер варианта'. затем сделайте коммит и отмените его.

```
PS D:\uni\4sem\253505_Malashkevich_13> git commit -m "new file creat
[develop 6c436e1] new file created
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt
PS D:\uni\4sem\253505_Malashkevich_13> git revert HEAD
[develop 0b4435e] Revert "new file created"
 1 file changed, 0 insertions(+), 0 deletions(-)
 delete mode 100644 test.txt
PS D:\uni\4sem\253505_Malashkevich_13> |
```

[illegible]

```
PS D:\uni\4sem\253505_Malashkevich_13> dir

Directory: D:\uni\4sem\253505_Malashkevich_13

Mode                LastWriteTime         Length Name
----                -
d-----           2/28/2024   5:32 PM             IGI
```

К. Проиндексируйте файл в вашем Git-репозитории, затем отмените его индексацию.

```
PS D:\uni\4sem\253505_Malashkevich_13> echo ok > ok.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add ok.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   ok.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/geometric_lib/

PS D:\uni\4sem\253505_Malashkevich_13> git rm --cached ok.txt
rm 'ok.txt'
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/geometric_lib/
        ok.txt

nothing added to commit but untracked files present (use "git add" to track)
PS D:\uni\4sem\253505_Malashkevich_13> |
```

L. Внесите изменения в файл в вашем Git-репозитории и затем верните его в исходное состояние.

```
PS D:\uni\4sem\253505_Malashkevich_13> type IGI/LR1/bin/ofcreadme.txt
nothing
PS D:\uni\4sem\253505_Malashkevich_13> echo 88005553555 > IGI/LR1/bin/ofcreadme.txt
PS D:\uni\4sem\253505_Malashkevich_13> type IGI/LR1/bin/ofcreadme.txt
88005553555
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   IGI/LR1/bin/ofcreadme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/geometric_lib/
        ok.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS D:\uni\4sem\253505_Malashkevich_13> git restore --worktree IGI/LR1/bin/ofcreadme.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/geometric_lib/
        ok.txt

nothing added to commit but untracked files present (use "git add" to track)
PS D:\uni\4sem\253505_Malashkevich_13> |
```

ЗАДАНИЕ 5: Выполните действия с удаленным репозиторием

A: Создать удаленный репозиторий.

The screenshot shows the GitHub interface for a repository named 'igi_git_lab'. At the top, there are buttons for 'Pin', 'Unwatch' (1), 'Fork' (0), and 'Star' (0). Below this, there are two main sections: 'Set up GitHub Copilot' and 'Add collaborators to this repository'. The 'Set up GitHub Copilot' section includes a button 'Get started with GitHub Copilot'. The 'Add collaborators to this repository' section includes a button 'Invite collaborators'. Below these sections, there is a 'Quick setup' section with instructions for setting up the repository on a desktop or via HTTPS/SSH. The 'Quick setup' section includes a button 'Set up in Desktop' and a button 'HTTPS SSH' with a text input field containing the repository URL 'https://github.com/MiksaMalaksa/igi_git_lab.git'. Below the 'Quick setup' section, there is a section titled '...or create a new repository on the command line' which includes a code block with the following commands:

```
echo "# igi_git_lab" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/MiksaMalaksa/igi_git_lab.git
git push -u origin main
```


В: Просмотрите информацию о нем, внесите изменения и опять просмотрите (remote, fetch).

```
PS D:\uni\4sem\253505_Malashkevich_13> git remote add origin https://github.com/MiksaMalaksa/igi_git_lab.git
PS D:\uni\4sem\253505_Malashkevich_13> git remote show origin
* remote origin
  Fetch URL: https://github.com/MiksaMalaksa/igi_git_lab.git
  Push URL: https://github.com/MiksaMalaksa/igi_git_lab.git
  HEAD branch: (unknown)
PS D:\uni\4sem\253505_Malashkevich_13> git fetch origin
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    IGI/LR1/geometric_lib/
    ok.txt

nothing added to commit but untracked files present (use "git add" to track)
PS D:\uni\4sem\253505_Malashkevich_13> git branch
  IGI
  IGI_lr1_br
  IGI_lr2_br
  IGI_lr3_br
  IGI_lr4_br
  IGI_lr5_br
  STRWEB_br
  STRWEB_lr1_br
  STRWEB_lr2_br
  STRWEB_lr3_br
  STRWEB_lr4_br
* develop
```

С: Измените несколько файлов в вашем проекте и перенесите их в удаленный репозиторий.

```
PS D:\uni\4sem\253505_Malashkevich_13> echo ohoho > IGI/LR1/bin/ofcreadme.txt
PS D:\uni\4sem\253505_Malashkevich_13> echo hihih > IGI/LR1/bin/foo/test.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   IGI/LR1/bin/foo/test.txt
        modified:   IGI/LR1/bin/ofcreadme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/geometric_lib/
        ok.txt

no changes added to commit (use "git add" and/or "git commit -a")
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR1/bin/foo/test.txt
PS D:\uni\4sem\253505_Malashkevich_13> git add IGI/LR1/bin/ofcreadme.txt
PS D:\uni\4sem\253505_Malashkevich_13> git status
On branch develop
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   IGI/LR1/bin/foo/test.txt
        modified:   IGI/LR1/bin/ofcreadme.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        IGI/LR1/geometric_lib/
        ok.txt

PS D:\uni\4sem\253505_Malashkevich_13> git commit -m 'changes for github'
[develop 895fb35] changes for github
 2 files changed, 0 insertions(+), 0 deletions(-)
PS D:\uni\4sem\253505_Malashkevich_13> git push -u origin master
error: src refspec master does not match any
error: failed to push some refs to 'https://github.com/MiksaMalaksa/igi_git_lab.git'
PS D:\uni\4sem\253505_Malashkevich_13> git push -all origin
error: did you mean '--all' (with two dashes)?
PS D:\uni\4sem\253505_Malashkevich_13> git push --all origin
Enumerating objects: 67, done.
Counting objects: 100% (67/67), done.
Delta compression using up to 16 threads
Compressing objects: 100% (38/38), done.
Writing objects: 100% (67/67), 4.66 KiB | 953.00 KiB/s, done.
Total 67 (delta 10), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (10/10), done.
To https://github.com/MiksaMalaksa/igi_git_lab.git
* [new branch]      IGI -> IGI
* [new branch]      IGI_lr1_br -> IGI_lr1_br
* [new branch]      IGI_lr2_br -> IGI_lr2_br
* [new branch]      IGI_lr3_br -> IGI_lr3_br
* [new branch]      IGI_lr4_br -> IGI_lr4_br
* [new branch]      IGI_lr5_br -> IGI_lr5_br
* [new branch]      STRWEB_br -> STRWEB_br
* [new branch]      STRWEB_lr1_br -> STRWEB_lr1_br
* [new branch]      STRWEB_lr2_br -> STRWEB_lr2_br
* [new branch]      STRWEB_lr3_br -> STRWEB_lr3_br
* [new branch]      STRWEB_lr4_br -> STRWEB_lr4_br
* [new branch]      develop -> develop
PS D:\uni\4sem\253505_Malashkevich_13> |
```

D. Переименуйте свой удаленный репозиторий.

```
PS D:\uni\4sem\253505_Malashkevich_13> git remote rename origin my_origin  
Renaming remote references: 100% (12/12), done.
```

```
PS D:\uni\4sem\253505_Malashkevich_13> git branch --all  
IGI  
IGI_lr1_br  
IGI_lr2_br  
IGI_lr3_br  
IGI_lr4_br  
IGI_lr5_br  
STRWEB_br  
STRWEB_lr1_br  
STRWEB_lr2_br  
STRWEB_lr3_br  
STRWEB_lr4_br  
* develop  
remotes/my_origin/IGI  
remotes/my_origin/IGI_lr1_br  
remotes/my_origin/IGI_lr2_br  
remotes/my_origin/IGI_lr3_br  
remotes/my_origin/IGI_lr4_br  
remotes/my_origin/IGI_lr5_br  
remotes/my_origin/STRWEB_br  
remotes/my_origin/STRWEB_lr1_br  
remotes/my_origin/STRWEB_lr2_br  
remotes/my_origin/STRWEB_lr3_br  
remotes/my_origin/STRWEB_lr4_br  
remotes/my_origin/develop  
PS D:\uni\4sem\253505_Malashkevich_13> |
```

E. Получите данные из удаленного репозитория.

```
PS D:\uni\4sem\253505_Malashkevich_13> git pull my_origin develop  
From https://github.com/MiksaMalaksa/igi_git_lab  
* branch          develop    -> FETCH_HEAD  
Already up to date.  
PS D:\uni\4sem\253505_Malashkevich_13> |
```

Е. Просмотреть историю изменений.

```
PS D:\uni\4sem\253505_Malashkevich_13> git log -p --pretty=oneline
895fb35996a7ce668a91cd30f83436984c19941d (HEAD -> develop, my_origin/develop) changes for github
diff --git a/IGI/LR1/bin/foo/test.txt b/IGI/LR1/bin/foo/test.txt
index 782052a..9fd32ca 100644
Binary files a/IGI/LR1/bin/foo/test.txt and b/IGI/LR1/bin/foo/test.txt differ
diff --git a/IGI/LR1/bin/ofcreadme.txt b/IGI/LR1/bin/ofcreadme.txt
index aa19b60..ea8a54c 100644
Binary files a/IGI/LR1/bin/ofcreadme.txt and b/IGI/LR1/bin/ofcreadme.txt differ
0b4435e393c170749293136642ca7c28fcc99024 Revert "new file created"
diff --git a/test.txt b/test.txt
deleted file mode 100644
index ded1b0d..0000000
Binary files a/test.txt and /dev/null differ
6c436e16fc202d8450063f241cb862902f5f041c new file created
diff --git a/test.txt b/test.txt
new file mode 100644
index 0000000..ded1b0d
Binary files /dev/null and b/test.txt differ
f062ccb8fa704029e1cd61a8c3df223a7df8519c delete readme
diff --git a/IGI/LR1/bin/readme.txt b/IGI/LR1/bin/readme.txt
deleted file mode 100644
index 9431e0e..0000000
Binary files a/IGI/LR1/bin/readme.txt and /dev/null differ
860698a431f0da02c076e10d4b3281d2506fcf45 basic stuff
diff --git a/IGI/LR1/bin/ofcreadme.txt b/IGI/LR1/bin/ofcreadme.txt
new file mode 100644
index 0000000..aa19b60
Binary files /dev/null and b/IGI/LR1/bin/ofcreadme.txt differ
efce571c9582299a5050aa8035fb351aebb89bcd first commit
diff --git a/IGI/LR1/bin/foo/test.txt b/IGI/LR1/bin/foo/test.txt
new file mode 100644
index 0000000..782052a
Binary files /dev/null and b/IGI/LR1/bin/foo/test.txt differ
diff --git a/IGI/LR1/bin/readme.txt b/IGI/LR1/bin/readme.txt
new file mode 100644
index 0000000..9431e0e
Binary files /dev/null and b/IGI/LR1/bin/readme.txt differ
PS D:\uni\4sem\253505_Malashkevich_13> |
```